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REPORT OF AN EXPERIMENTAL TEST OF MUSICAL EXPRESSIVENESS.

BY BENJAMIN IVES GILMAN.

(Continued from last number.)

The opinion which has been the starting point of this experiment is that music is a form of language, a vehicle by which thoughts and feelings may be transmitted from one mind to another. Musical compositions are said to be the texts which he who listens may read. In other words, a piece of music has, according to this view, a power to engender a more or less specific frame of mind and heart: this being its burden, message, import, or what it expresses.

In attempting to apply a test to the opinion thus formulated, our first business must be to decide upon what we shall take such phrases as these to mean; for they are far from constituting a definite doctrine. The general notion which lies at the basis of them is evidently that of the resemblance of the mental state of different hearers of a piece, or the same hearer on different occasions by more than the content of the auditory perceptions. Meaning by an individual instance of a certain music a certain occasion of the occurrence of a certain mass of auditory perception to a certain hearer, what we shall call an individual impression from a music will be the content of imagination and emotion entering into an individual instance of it. By a body of agreement or simply an agreement about a piece, we shall mean an element common to several individual impressions from it; and by a prevalent agreement, an element common to a majority of impressions. We shall here assume that any agreement which tends to be prevalent about a piece enters into its burden of expression. That is, whatever elements of feeling or fancy we have reason to think would, by taking more and more impressions, eventually prove to enter into a majority of impressions about it, will, taken together, constitute its probable burden of expression.

Our reason to think this of any element of spiritual content will emerge in a comparison of whatever impressions we can

obtain of the given piece. Left out of the comparison altogether, we may assume, by the terms of the definition of expression, will be, first: the impressions of inattentive hearers, for in these cases no auditory perceptions exist, in the sense of *grasped* content of sound; and second, those cases in which the attention of the hearer is altogether absorbed by his auditory perceptions, for here no impression exists of which an account can be given. Certain impressions of attentive hearers having been obtained, the next step will be to ascertain by comparison what prevalent agreements exist between them. These hypothetical elements of the expression of the piece must then be tested by drawing new impressions into the comparison. Any hypothetical element which prevails also in the new collection of instances, gains through that confirmation the rank of a probable element of the expressiveness of the piece; any found among the minority only becomes through this fact a discredited hypothesis.

An agreement which is dependent only upon particular experiences of the auditors would certainly disappear in the long run, and may be thrown out at once. This would eliminate any agreement which could be ascribed to external associations with the music; such as those arising from its occurrence, or the occurrence of music like it, on special occasions, or at special places, or in connection with special things or events. Here belongs the requirement that the selection which is to be the subject of a test must not be *recognized*, else such associations (its name, the words that go with it, the dramatic situation for which it was written, etc., etc.) will give it an adventitious expressiveness. In this category are to be placed agreements caused by the communication of the spiritual state of one auditor to another. Any consensus caused by word or sign, or by the knowledge in any way received of the interpretation given by another, would be ephemeral, and is discredited in advance. Although the auditors may strive to disregard all such influences, it is a feat of introspective chemistry of which, doubtless, none are capable to dissociate their external accretions from the rest of the spiritual state. In searching for the expression of a piece, the aim should be to select the impressions of those auditors only to no group of whom such knowledge about and associations with a piece are common.

It may be that an inquiry like the present will bring to light certain conditions of mind, or certain types of mental structure, among instances of which the expressiveness of a music is more fully and distinctly felt than under other conditions and by other minds. One psychical element, which it seems antecedently very probable would increase the ex-

pressiveness of a given music to its possessor, is that of apperception, enjoyment of the auditory content presented. This may in part be an effect due to the attention, which, without interest in a music, would tend to desert the sound and reduce the amount of coincidence between the auditory impression and those of others toward that of any juxtaposed individuals. The impressions of those who do not enjoy a piece would, in so far as this is true, fall under the head above referred to, of inattentive states of mind, not to be called impressions. The effect may in part also be due to the fact that an enrichment of the mood of mind, a more prolific development of feeling and fancy takes place under the awakening and stimulating effect of auditory pleasure. If this is not to exhaust the matter, if apart from attention and excitement the enjoyment of a piece makes it more expressive to the listener, the fact is interesting and piques the curiosity. In regard to mental type. It is said, and doubtless with reason, that certain persons possess, and others lack, "a sense for the language of tone." A vague phrase like this being of no use whatever in any exacter inquiry, we are again obliged, in order to have something to test, to invent a definite meaning for it, as we did in the case of expressiveness itself. This will be the following : An auditor possesses a sense for the language of tone, or is specially sensitive to musical expressiveness when his impressions are a better indication of the probable expressiveness of a piece than are those of others. To express this more fully, the probable expressiveness of various pieces being determined by finding prevalent agreements about them, the examination of the degree of fullness and clearness with which a given burden is reflected in the impressions of a given listener, extended to various listeners and various expressive pieces, may reveal the fact that this degree tends to be markedly higher in the case of some than in the case of the rest ; by which is meant that, comparing impressions from more and more pieces, the average of completeness and clearness with which their burdens appear in the impressions of certain listeners will eventually be found much higher than the same average in the case of the others. In default of any convincing evidence of the existence of such a class we can only make surmises as to the peculiarity of mental structure which may be its distinguishing mark. We shall, nevertheless, postulate some connection between this characteristic and powers of musical invention in so far as to assume that composers of rank possess it ; that is, we shall assume that the type of mind which is capable of creating structures of tone which the world recognizes as beautiful, will also be specially sensitive to the expressiveness of such creations.

As to the general nature of our inquiry we conclude, then, that its aim should be to find prevalent agreements among impressions from music: these when verified becoming the probable expression or import of the piece in question. Only the impressions of auditors neither inattentive to nor absorbed in the music are to be relied upon in the test. The auditors are further to be independent listeners, who do not recognize the music nor together associate it in any way with particular experiences. We are prepared to restrict our attention to impressions showing an enjoyment of the music played, and to find indications in the replies that there may in different individuals exist a difference of capacity to detect the expressive burden of music.

These logical requirements of the present inquiry we have endeavored to meet first by making our experiment the test of certain hypothetical conclusions as to the expressiveness of certain fragments of music based on opinions already expressed in regard to them. In general this preliminary evidence is the interpretation of a single auditor and may be looked upon as his prevalent impression formed from repeated hearings of the piece in question. To some extent these conceptions are very likely the result of association, due to the auditor's knowledge about the various selections: to what extent their comparison with the replies will give an idea. If the evidence here presented be thought hardly more than suffices for the formation of hypotheses as to the burden of the selections in question, at least the first step has here been taken toward providing an inductive basis for an opinion upon the matter. In the second place the listeners have been chosen for the most part among those specially interested in music; what the selections were has not been divulged to them, and they have been requested to signify the fact of any recognition of the pieces and to refrain from any communication with one another about them.

Independently of the general popular belief in the expressiveness of music, and in advance of a special investigation like our own, we have good reason to think that at least general forms of prevalent agreement tend to some extent to emerge among the impressions of different listeners to the same piece. The mechanism of the influence of tone in the psychical life is largely a mystery (e. g., its effects upon animals and nervously weak people), but there is one form of its working we *can* understand and from which a certain expressiveness seems very naturally to follow. A piece of music is a flow of sensation having certain characteristics which suggest other like things, and those would often in different minds be broadly similar. The illustration nearest

at hand is that of a decided double rhythm of accent marking equal lapses of time. This bears a general resemblance to the rhythm of ordinary human locomotion and its presence in a music, we may be sure, will make images akin to this present themselves very generally in the minds of listeners. So a marked triple rhythm will suggest ideas nearly or remotely like those of leaping and dancing. In the sphere of emotion there exists one specially marked instance of a prevalent effect. Whether the connection between the interval where ratio may be expressed by the fraction $\frac{6}{5}$, and the emotion of melancholy is to be explained as a recondite case of suggestion by similarity or in some other psychological way, or must be accounted for by nervous laws, is as yet undecided : but the connection itself is unquestionable. This interval is about $\frac{3}{8}$ of a tone less than another harmonious combination of pitch, viz., the interval $\frac{5}{4}$. Both are called Thirds (the name growing out of their span of notes in the diatonic scale), the interval $\frac{6}{5}$ being called the lesser and $\frac{5}{4}$ the greater Third. But so intimate is the connection between the lesser Third and feelings of sadness that the adjective "minor," by which the interval is known in English, has been taken up in our common speech as a synonym of "sorrowful." The phrase "a minor strain" often contains no reference at all to the interval of the lesser Third, meaning simply a strain of sadness, a strain engendering melancholy emotion. Some real expressiveness, therefore, we may assume that there undoubtedly is in musical forms. An inquiry in regard to the opinion which has been our starting point is accordingly to be viewed as an attempt to determine the limitations of a power of tone in the spiritual life of whose existence in some form we may feel assured in advance.

Let us now see how it fares with the opinions we have gathered about the different selections of music constituting our programme when confronted with the evidence furnished by our company of listeners. And first, it is to be remarked that as determined by its permanent record a piece of music may be said to be only a general scheme of auditory content of which the concrete embodiments given in different performances may differ very considerably. What we are here testing is the expressiveness which resides in these general schemes of sensation, determined by the printed record of music and not the expressiveness which compositions may have under the hands of special performers. The plan of a structure of tone left in Beethoven's Mss. of the Sonata Pastorale, may have been carried out in the performances from which Gurney received his pronounced impressions of passionate movement in a way differing in important charac-

teristics from that chosen in the performances which our listeners heard. Whatever negative results emerge from our experiment are therefore to be interpreted as indicating that it is not in the printed page that the supposed burden of the music resides—whether in a given rendition or not it would require further experiment to decide. It may be mentioned that the understanding with the performers was that the rendition should be to use the technical terms “objective” rather than “subjective”—that is, they should take no liberties with the text and should not be governed by any ideal or emotional mood unwarranted thereby. Further, the expressions of opinion on which the questions were based were purposely kept from their knowledge. A second point should here be noted. Only in the five pianoforte selections (I. III. IV. V. VIII.) can even the recorded scheme of tone, that is, the piece as written, be said to have been exactly reproduced at our concert. In the six vocal selections (II. VI. VII. IX. X. XI.) the voice was represented by the violin and the accompaniment, if at all by the piano. In these cases the test is then of a somewhat different texture of tone from that of which the selections as recorded consist, and on which the preliminary evidence was presumably founded. The instances in which a more ambitious representation was attempted proved comparatively barren of result and are not included in our evidence. Let us now proceed to an analytical comparison of the notes on each piece judged, both among themselves and with the utterance on which the question was founded.

I.

My conception of the burden of Beethoven Prelude may be analyzed as follows: (a) amid deep gloom; (b) intense labor; (c) repeatedly; (d) directed; (e) toward a single achievement; (f) without progress.

(a) No one except, perhaps, *I*, agrees with me in finding the piece *deeply gloomy*.

According to nearly half the listeners it is more or less tinged with depressed emotion, viz., *M* (melancholy); *E* (disheartening); *B*, *D*, *J*, *K* (sad); *E*, *G*, *J* (unrestful); *P* (yearning); *H* (regretful); *A* (weird). It is apparently neutral to *H*, *L*, *F* and *K*, and either serene or buoyant to *I*, *F*, *N*, *O*, *P*, *A*, *C*, *D* and *L*.

(b) No one states as unequivocally as *I* the *intensity* of the energy involved, although the notes of *E*, *L*, *M*, *A*, *E*, *G* and *I* may be conceived to imply it.

It is especially noted as *mild* energy by *A*, *H* and *O*.

To F, D, K, *H* and *L* the images suggested can hardly be said to have involved activity at all.

(c) All of the twenty listeners to whom the piece unequivocally signified activity, regarded this as *repeated* (I take it waves were present to *A*'s mind).

This idea of the aggregation of like elements is lacking in the impressions of the other five, F, H, *H*, *L* and K, the latter especially remarking that the structure of the piece is organic and not that of accretion.

(d) These twenty listeners gave eight judgments affirming the activity to be *purposive*: so E, *J* (argument); H (parting branches); O (fashioning); L (conquest of an opposition); M (struggles of life); *D* (successful energy); *E* (flight against wind).

In fourteen it is without purpose: so E, P (dance); A (tree-tops); B and I (chimes); P, *C* (brook); J, N, A, F, G, I, K (waves).

(e) Of the eight who find the suggested activities purposive, but two agree with me in thinking them attempts at a *single achievement*: so L (conquest of an opposition); and *E* (flight against wind).

They are two antagonistic efforts to E and *J* (argument); successive steps in a labor to O (fashioning); and *D* (successful energy); successive achievements to H (parting branches); successive struggles to M (career).

(f) The twenty listeners to whom the piece expresses activity give fifteen judgments, agreeing with me that the activity is *without progress*; or at least arrives nowhere: so A (swaying); B, I (chimes); E (argument indecisive and dropped); H (advance, but no arrival); J, N, F, G, I, K (waves); E, P (dance); *E* (flight against wind); P (brook).

They give nine judgments affirming progress: so E (torrent); L (opposition conquered); O (fashioning); A (haven); *C* (brook); *D* (successful energy); M, G, *J* (peace).

Besides the agreements thus far mentioned, there is in the notes another which deserves notice.

To several listeners the piece brings the suggestion of a church and its chimes or organ: so B, *I* (church and funeral); D (organ); I, P (opening of service); *L* (wedding; organ). This is doubtless due to the polyphonic character of this prelude (which two listeners thought was by Bach), organ compositions having commonly such structure. These ideas are accordingly special *associations*, and are to be thrown out in a quest after the real intrinsic import of the piece.

The various elements of my notion about this music have stood the test of comparison with those of others in the following way:

(a) Deep gloom. The opinions are about equally divided as to whether the piece is bright or dark in emotional tone. The indication accordingly is that, although in a minor key, it has no pronounced emotional tone. This is noticeable.

(b) Intense energy. The fact that some notes can be interpreted as suggestions of strong activity, while to others it is expressly stated as mild, and the rest seem to regard it as moderate, is an indication that the piece does not, in reality, express any particular degree of energy.

(c) Repetition. A large majority recognize this element.

In regard to (d) purpose or no purpose, (f) progress or no progress, it can be made out that the negative alternative prevails in both cases. This indicates that the element of purpose [and hence (e) determination of achievement] probably is not, and that the element of absence of any progress probably is, a part of the expressiveness of the piece.

In short, the indication of the answers is that this Prelude expresses simply *recurrent activity without progress*, whether grave or gay, intense or mild, purposive or purposeless — all being indeterminate. The determinations of those points in the above formula as well as in the judgments obtained are, it is indicated, mythical creations, which in my mind have grown up around the piece in the course of long acquaintance with it, and which in the listeners' minds have been evoked by the first impact of the music.

But if recurrent activity without progress is all the expression, import, spiritual content of the piece, it is a question whether it should be said to have any expressiveness at all, for it may be claimed that this much is *in* the music itself. It is recurrently active, and at least in the fifth bar from the end (beyond which its figure may be said simply to die away) comes round again to exactly the texture of tone that constitutes its opening bar.

We may, indeed, compare our result and the comparative lack of imaginative content in the main impression received by K (idea of organism), with the remark of C, that the make of the music absorbed his attention, and surmise that polyphonic music may, perhaps, in reality be less expressive, more musically absorbing, than melody or harmony.

II.

Gurney's characterization of the melody from *La Favorita* involves the two elements of weakness and absence of rigidity (flaccidity). Any definite suggestion of weakness is hardly found in more than seven replies: so K (feeble nature); L (dependence); N, G (faint hearted love); O (discourage-

ment); P (gentle sadness); *F* (hesitation). The element of flaccidity may be thought, perhaps, to appear in eight cases: so E, P, G (plaintiveness); H? (melancholy); I (relaxed body); L (dependence); O (discouragement); *K* (sad meditation). The result may be said then to be the negation of Gurney's interpretation in both points.

In so far as a setting by Donizetti is not to be regarded as a somewhat hap-hazard selection from his note-book, we can take the operatic situation for which he wrote as an indication of his own conception of his work. The words of "O, mio Fernando" are an expression of passionate regret, a resolve of sacrifice, and a cry for death. The situation is La Favorita's choice to give up the man she adores and who adores her, rather than deceive him by hiding the dishonor of her past life. Here regret, complaint and resolution take the place of flaccid feebleness; but these characters fare hardly better among our listeners. For regret and complaint may be cited A (*liebesweh*); B, J (despair); E, G, P (plaintiveness); F, I, *D* (regret); H? (melancholy).

A hypothetical burden for the melody, which a general survey of the replies suggests, might be formulated as *yearning*, or want of attainment. For this interpretation may be cited A, B, C, E, F, I, K, L, N, O, P, *A, D, E, F, G, J, L*, eighteen voices. But as in the last selection, it is a question whether this can be considered as *expressed by*, or whether it is not rather *in* the music. I mean by this, as before, that taking the content of pure *sound perception* which makes up the melody, leaving out any emotion, and leaving out any fancy which is not an image of a *sound*, we find therein an end set and unattained. This end is the *tonic-note* of the melody, which we may conceive as floating in the fancy of its hearers as a wished-for sound. The song begins away from it (on the note called the mediant), wanders about in the scale (of *E*) without letting us rest in this desideratum of the ear, and ends (in the fragment played) on the note above the tonic, leaving our sound-wish unsatisfied. The general scheme of the experience we call yearning is thus given purely in the sounds of the song, and something more must be claimed (e. g., an emotion which goes with an end unattained) in order to give the melody any expressiveness at all.

The phrase in which Gurney characterizes the melody from *Der Freischütz* contains beside the element of beauty (fair) three others—serenity, permanence and strength. We can find an atmosphere of serenity in, at most, six answers: so C (satisfaction, assurance, relief); H (serious joy); O? (confidence); *G?* (cheerfulness); *J* (attainment); *K* (serene joy). Permanence appears, perhaps, in E (joyful looking to

the future); *L* (hope); *K* (serene joy); and in the second poem cited by *N*:

"But years must teem with change untried,"

* * * * *

"No fear! or if a fear be born
This minute, it dies out in scorn."

Neither of these characteristics is therefore to be admitted. Some suggestion of strength may be found in sixteen answers, viz.: *A?* *B?* (triumph); *H* (sunlight); *I* (up and doing); *K* (strong nature); *L*, *P* (vigorous); *M* (sparkling breeze); *C*, *N*, *O*, *L* (confidence); *C* (impetuosity); *F* (resolution); *H* (energy aroused); *I?* (lively). We may, perhaps, count this latter consensus as a corroboration of Gurney, and assume that the melody probably does express vigor.

Calling in now Weber as a witness, on whose high standard of fitness between poetry and music we may safely rely, this element of vigor is again indicated. At the opening of the air (which alone was played), Max sings—

"With a light heart I roamed through wood and field;
All I caught sight of fell before my trusty rifle."

Here we have the suggestion of vigor, high spirits and independence; or morning hours too, and the open air.

Sixteen of our replies recognize an element akin to light-heartedness in the melody: so *A* (light-hearted); *D* (gaiety); *E*, *F*, *G*, *H*, *K*, *L* (joy); *I*, *N*, *P* (buoyancy); *O* (gay, non-chalant purpose); *A* (allegro); *E* (shallow buoyancy); *G* (cheerful); *I* (lively). Even suggestions of independence (cf. *I*, *L*, *M*) and daylight and the open air (cf. *H*, *M*, *E*, *H*) are not wanting. We may fairly add the element of buoyancy to that of strength, and as the result of our test claim *light-hearted vigor* as the probable burden of the melody.

III.

The opening of the Sonata Pastorale conveyed to Gurney the idea of *resistless movement*, all the more resistless after the interim of runs. Out of twenty-four listeners who gained some definite suggestion from the selection fourteen connected it with a movement or progress of some sort: so *B* (half-sung soliloquy); *D* (orchestral climax); *E* (a coming good); *F* (advent of spring); *H* (mild progress); *I* (railway train); *N* (flight into the blue); *P* (abandon); *A* (learning to walk); *D* (consent); *E* (advance toward a decision); *G* (dance); *H* (an uplifting); *K* (a rocking boat). The effect of power on the other hand is felt by not more than eight: we may perhaps discern it in *C*, *J* (invigoration); *E* (stress of impatience); *I* (railway); *N* (religious context); *D* (consent of many); *H* (divine uplifting); *E* (conflict).

According to our listeners, then, the impression of resistlessness is not in the music as written. We can regard it perhaps as a special product of the piece in Gurney's mind. Indeed while feeling this impression unequivocally, Gurney distinctly recognizes (p. 172) the possibility that others may not. Or again, this may be a case where an impression is the growth of a particular habitude of the rendition of the music. There are traces in our replies of the conception of a surrender to some power: so *I* (to rhythm of rails); *K* (to the waves); *N* (abandonment of finitude); *P* (festive abandon); *B*? (serene confidence); *D* (surrender of many wills); *H* (sustaining power of faith). It is not impossible that were this conception in the mind of a performer, such impressions might become more frequent and be found to develop into the sense of compulsion of passionate movement that Gurney felt.

The number of persons who found a certain triviality in the music is worthy of note. Thus *B* (careless soliloquy); *D* (ephemeral feeling); *E*, *K* (pearl-color, powder, carved walking sticks); *G* (opera air); *I* (song chorus); *L* (trivialness); *M* (frivolous); *N* (jolly flight); *P* (gay responses); *A* (infancy); *E* (inconsequence); *G* (fête).

Perhaps after all a *happy surrender* is the most promising hypothetical burden to be derived from our replies: for surrender becomes triviality when the compelling power is slight and when it has grown great is the sign of its resistlessness.

IV.

Of the Chopin Ballade, Rubinstein writes: "Is it possible that the performer should not feel the necessity of representing to his hearers; a wild flower caught in a gust of wind, etc., etc.," intimating that this impression is to be given in the rendition. It has nowhere completely emerged in our replies, as a comparison will show. The conception may be formulated thus: A character of innocence and gentleness attracts the admiration of a bold wanderer whose, persuasion met by reluctance becomes violence that conquers by destroying. The story then opposes weakness and simplicity and fascination to strength and experience and desire; tells first of gentle means opposed inertly, then of harsh means opposed feebly; then of a victory that is death to the vanquished. The dramatis personæ are two, defenseless charm and imperious longing; the action is the attack and ruin of the former by the latter.

The closest approximation to this story among our replies is that of *E*; but here the actors are the worse and better elements of one nature. As in Rubinstein's interpretation

there are here two stages of the conflict, one in which the purer and weaker element still maintains itself, and a second and sterner struggle in which its downfall is complete. The last few bars where, perhaps, in Rubinstein's fancy, the fallen flower exhales its life, *E* has beautifully interpreted to mean the survival in outward conduct of the blamelessness the heart has lost. Next nearest perhaps is the impression of *K*, in which while all the movement in Rubinstein's impression has faded out, there remains his conception of two personalities, one who will not be gainsaid, however the other may expostulate and entreat. Two personalities, a stronger and a weaker, appear in *D*'s suggestion of George Sand and Chopin, but certainly no masterful beating down by one of the opposition of the other, no mortal victory. The introduction depicts to *C* a personality at peace, yet it is not the calm of untroubled innocence, but that of resolute renunciation; and it is this element which is the stronger in the conflict that follows, and upon which desire and entreaty exhaust themselves in vain. The framework of *B*'s story (murder) is curiously like that of *C*'s, although the background of mood in the two is so diverse. The *presto con fuoco* represents to both a superior power opposing itself to wild entreaty, and in both it is the victorious element (and not the vanquished as with Rubinstein) whose controlled strength is suggested in the prelude; only in *C*'s story it is the weaker and in *B*'s the stronger element that is the aggressor. Further *B* brings in a third element, the march of surrounding event, with which we may compare the solemn tendency caught sight of by *O*. On the other hand, in *N*'s story of the lover bereft as in Rubinstein's of the flower, the element portrayed in the quiet introduction is that which succumbs later to a resistless power. Yet it falls, not in a gradual contest with a personal force as Rubinstein has it, but to the instantaneous blow of some fate; (in the poem, death) and the struggle is an effort to *win back* what was lost. One of the pictures (a battlefield) suggested to *K* is very similar to this: for here, too, the quiet introduction depicts peace (to be sure, sorrowful or monotonous), and the tumult is its destruction in a sudden calamity, and possibly to efforts (search) after its restoration. Happiness wrecked by a sudden calamity appears again in Browning's poem "In a Gondola" suggested to *I*. With these the other story suggested to *K*, that of Dido and Æneas, has in common a shattered paradise of love, and (excepting *I*) unavailing efforts to regain it; here again it is the beloved who is bereft of her lover, yet the calamity is not external, but his own act. The trait of a struggle to regain something lost (*N*, *K*) reappears in *O*'s

impression, in which while the calm introduction portrays maidenly innocence and peace as it does to Rubinstein, the tumult is an effort to *rescue* the heroine after some external calamity and not the progress of her downfall. Love is the burden of the introduction to A, as to N, K and I, but the lovers are together in disaster and together lost; together in disaster, too, are L's friends, but it is inward dissension, not outward misfortune. The scene of Ophelia's burial and Hamlet's struggle with Laertes came to D's mind: not her tragedy that had then been played through, though this latter is much nearer Rubinstein's conception.

In several of the impressions only broad outlines of a drama of tumult following peace presented themselves: so F, D (passionate interlude in a quiet life); F, J (peace; conflict; rest); G, P, I (storm); I (a child's future peril dreamed by the mother); J (peace; catastrophe; ruin); K (sad monotony—disaster upon disaster; ruin); M (cloistered peace engulfed in disorder and surviving only in memory); B (struggle; success).

To some listeners only disconnected scenes were suggested: to C (devotional; storm; gaiety; stormy; gentle again); A, G (gaiety or peace; apprehension; grave joy; stormy passion; memory of gaiety, or peace again); P, H (cloistered peace and wordly tumult); L (storm and music).

Finally, in two stories cast in the same general mould, E and H give a faithful record of the surrender of the sense of musical charm to the sense of the ridiculous. The resistance of E to demoralizing laughter is no less edifying than the frankness with which he frees his mind about the selection. His hero's malformation and the dismemberment of H's heroines; fruit of the monotonous introductory rhythm and the riotous discord later—show clearly wherein the Ballade makes exactions upon the listener.

Summing up we find that the quiet introductory theme, identified by Rubinstein with a personal type of weakness, inexperience and charm, is in sixteen impressions interpreted as depicting a *condition of quiet*; so F, J, J (peace); K (sad monotony); P (a soul at peace); N, A, L, I (happy love); M, P, H (cloisterers); C, G, L (devotional); B (stealthy movement); and in but nine suggestive of character: so D (Chopin); F (youth); D, O (young girl); E (rich-minded sobriety); H (doll); I (infancy); C, E (sensitiveness and force).

While the presto con fuoco is generally recognized as a scene of storm or conflict, by eleven listeners the elements at war are not definitely distinguished: so C, G, L, A (storm); M, G, J (war); F, P, J (conflict); F (excitement). Of the

remaining seventeen listeners fifteen (all but *L* and *D*) recognize with Rubinstein a stronger and a weaker antagonist: so *A* (perils; lovers); *B*, *I* (murderer; victim); *D* (George Sand; Chopin); *E* (rapids; swimmer); *H* (boys; dolls); *I* (vicissitudes; individual life); *K* (*Æneas*; Dido; or a soldier's fate; his beloved); *N* (fate; a lover); *O* (misfortune; a victim); *B* (purpose; disappointments); *C* (resolution; entreaty); *E* (inclination; duty); *H* (the strong; the weak); *K* (desire; entreaty).

The stronger is a person as in Rubinstein's story in nine cases: so *B*, *D*, *H*, *K*, *B*, *C*, *H*, *I*, *K*; but his identification of the weaker with a character presented in the prelude occurs but three times: so *D* (Chopin); *E* (swimmer); *I* (infancy); identification with an element or elements presented in the prelude occurring five times: so *E*, *A*, *H*, *K*, *N*.

A definite ending to the struggle appears in twelve impressions: this is destruction in some form in seven: so *A* (wreck); *B*, *J*, *I* (violent death); *K* (despair); *E* (fall); *O* (sacrifice); a failure of destructive efforts in one *C*; a failure of constructive efforts in two *N* and *K*; and their success in two *D* (old life enriched) *B* (success).

The closing bars of the piece are interpreted in thirteen impressions as a return of some semblance only of what was pictured in the introduction: so *A*, *I* (subsiding sea); *B* (remorse); *D* (old life enriched); *H* (sole survivor); *I* (good-night); *J* (hush); *M*, *N*, *O*, *A* (happiness remembered); *D* (thought of the dead); *E* (outward purity).

It is evident that there can be found in these answers no prevalent agreement on any but a very meagre story. More can hardly be claimed as the conception of a majority than that of peace followed by a struggle of a stronger with a weaker element, which is renewed after an interval. All the rest of Rubinstein's interpretation the test has failed to confirm, thus corroborating the negative side of his opinion, viz., that this story is not contained in the music as written. Our replies possibly add as a hypothetical outcome of the drama the return of at most a semblance of a former peace.

But for the third time we meet the question whether, if this be all its burden, the music can be said to be expressive at all; for as much of a drama as this seems to be contained in the flow of sound itself that constitutes the piece; the formula simply enumerates certain characters taken on successively by the listener's auditory perceptions. The beginning of the piece *is* quietly monotonous as a sequence of sound. Later, there *are* in the auditory perceptions two elements, a stronger and a weaker, in conflict; the latter being the *image* of the diatonic scale in the mind of the hearer, which opposes the

introduction of notes foreign to it ; the former being *sensations* of such notes (e. g., B sharp, the piece being written in the key of F) which enter nevertheless, and powerfully ; sensation being stronger than fancy, we have an antagonist which conquers, and an antagonist which yields. Finally the sound of the closing bars is a semblance, and only a semblance, of the quiet flow of tone constituting the introduction. According to this the present test not only negatives Rubinstein's dramatic image, but offers no suggestion of another. The piece may be imaginatively expressive and what is thus expressed may be the story of the flower, but whatever it be our replies have failed to indicate it. We must have recourse again to emotional elements, forming a prevalent progression, of underlying shades of feeling in the various images. The formula might be : peace (several find it clouded in some way) ; fear. To several the close is regretful.

The two characteristics of suggestiveness and expressiveness in music are to be differentiated. A music is suggestive when the tones come embedded in a rich mood of fancy and emotion ; it is expressive only when we find these moods alike in comparing one with another. Hence, it may be said that music is never so suggestive as it might be were it not so expressive. A lack of expressiveness may spring from two causes ; a piece may be too little or it may be too diversely suggestive. The negative results of inquiry IV. are certainly due to no want of response to the Ballade in the hearts of this company of hearers.

V.

The Andante of Beethoven's opus, 109, depicts a mood that brought to the point one hardly cares fully to express even in the interest of truth. One wonders whether there is another art whose product could do quite the same. The replies unquestionably confirm my impression that the fragment has religious significance. There is more unanimity here than about any of the other selections. In describing the atmosphere of the music, words of religious import are used in nearly half the cases : so H, I, J, L, M, O, A, C, G, I (religious) ; F (prayer) ; H (aspiration) ; K (worship). More or less closely allied impressions are G (a placid mood in the presence of the sublime) ; C (resignation) ; D (peaceful sadness) ; E (grave, not regretful) ; P (tender seriousness) ; B (seriousness of life) ; E (comfort in sorrow). More divergent are N ? (calm dignity) ; D (placid retrospect) ; F (retrospect) ; K (quiet happiness). Three listeners detect a certain unrestfulness in the music : so B (doubt) ; L (unrest) ; L (restlessness).

One listener (M) remarks on the likeness of the piece to German church music. Admitting this to be the source of its religious impressiveness, the agreement upon this would then be of associative origin born of the familiarity of the audience generally with this form of ecclesiastical composition, and not a real message carried beyond the limits of this acquaintance. It would be a difficult enough matter to find listeners who should not have such associations and who should at the same time be capable witnesses: but had this been the source of the unanimity in the present replies, one would have expected to find in them more ecclesiastical or ceremonial references than the three we have: viz., besides M, K (Strasburg Cathedral); N (ceremony).

VI.

The comic element which Engel finds in Barberina's aria in the *Nozze di Figaro* can be detected in the impressions of at most five out of twenty-two of our listeners who report on this selection: so C (sad humor); E? (uncouthness); N? (no high tragedy); H (teasing); L? (doll). This result (looking at numbers alone) negatives the idea that the trait in question appears in the music; and indicates as its origin the dramatic and poetic setting of the air, whose effect in the mind of one familiar with the opera is no longer to be surely distinguished from that of the texture of tone. But our conclusions must now, I think, be more than ever tentative, for the fatigue of the audience has by this time become a factor to be reckoned with. Further, we find that in one of the replies possibly to be adduced as evidence for an element of humor in the piece, the dramatic situation for which Mozart composed it is recorded almost as it might have been had the listener had the scene before him as he wrote. Barberina has lost the pin that the count gave her to carry to Susanna, and sings: "I have lost it; poor me; who knows where it may be? I can't find it; and my cousin; and the count, what will he say?" The impression he received from the music of this complaint N describes thus: "It is an impression of some one seeking in hope and sadness mingled for some lost thing; whether a lost child or a lost latch-key, I can't say." But it is evidently the latch-key, for there is "no high tragedy" in the music, and even so he has himself searched his pockets "for the last nickel and found it not." To N there was, in the music, not only a suggestion of search unsuccessful but of search with a certain element of triviality about it. But for the element of dismay in the words, one could hardly go further unless to designate the object as a pin, the loser as a serving maid, etc., etc., which details the

devoted believer in musical expressiveness could hardly demand.

This coincidence, which was due to no conscious recollection of the opera (heard, if ever, a dozen years ago, in Germany) on N's part, may be explained, if we please, as a feat of memory too recondite to give any recognizable account of itself. Or again, the particular nearness of the approach to Mozart's idea may be what we call a chance. The remaining alternative is to consider it a real striking of hands on the Elysian fields between Contemplation and Creation. There is a type of mind, according to this, Mozart and N being instances, to which music may have an expressive burden, as complicated, as the notion of an unsuccessful search after an unimportant thing. The premises by whose aid we draw this inference from the fact of this coincidence (we have had complex coincidences among our replies before) are two: the assumption (already made in Weber's case) that the aria of Barberina sprang into being out of a mood in Mozart's soul of vivid realization of the scene to be given a musical accompaniment; and the assumption that the mood of composition whose precipitate is a given music, is a better indication than that of any mere auditor of the retinue of spiritual elements with which the music will be apt to be accompanied. On these assumptions N is indicated as possibly one of the natures specially sensitive to musical expressiveness, of whose existence we have been prepared to find evidence.

But let us inquire what prevalent agreements exist among the other replies, and what, if anything, we can more plausibly add to them, by the aid of the principle just stated, as a part of the hypothetical expressiveness of Barberina's aria.

We shall, I think, in this way, reach an indicated burden which may be analyzed into the four elements of weakness, simplicity, desire and pain (meaning by pain simply disagreeableness, not physical pain only, nor only the intensely disagreeable). As to the origin of these various elements, the following hypotheses may be made: The weakness and simplicity are, perhaps, given in the want of intensity of the strains, their small range of movement in pitch and their small duration in time (iteration). The desire is given, perhaps, in part by the fact that the melody keeps away in great measure from that desideratum of the ear, its tonic note, beginning and ending on the dominant; and in part, perhaps, by some resemblance in its flow to the intonations of the voice in uttering a wish. The germ of the pain is already given in the desire, but there is unquestionably a likeness between the semi-tone changes which are prominent

in the melody (c'', d'' b; b' sharp, c''; e'' sharp, f'') and the continuous change of pitch through a small compass characteristic of the gentle expression of pain by the voice (moaning); further, the fact that the music is the minor mode is another source of pathos.

The wind about a house to which B likened the music changes its pitch continuously through a small interval, like a cry or moan of pain. B used the former word; the latter is chosen by P; in whose impression a human suggestion enters. In J's picture of the expression of a diminutive anguish to the vocal utterance of pain, add themselves the ideas of weakness, simplicity and indefinite desire (crying child). Here L takes up the suggestion and constructs on it a little nursery story of a child's plea with her doll for affection. In the impressions of F and I, which also contain the idea of entreaty, this suggestion of simplicity and want of development falls out and the main image is one of desire and pathos (pleading for forgiveness). But developed into rusticity and uncouthness it, in its turn, is the principal part of the image of E, where the idea of entreaty is only to be inferred from an unwillingness and final consent that was heard in the music. A picture not unlike is that of H, where a certain simplicity, with a dash of irritation in it, appears in the notion of teasing, entreaties becoming simply questions. Questioning is the sole content of H's impression and D's, and in the form of uncertainty enters into those of C and G. The latter, further, expressly mention *search*, the only one of the listeners, beside N, to do so. Pathos and weakness, with or without desire, enter into the impressions of A, M, B and J. In those of K and E the simple monotony of the music, with its touch of mild sadness, have become a resignation to the humdrum; A makes it even a sunny resignation, C a humorous sadness. In the reply of N finally the elements of simplicity and mildness manifest themselves through his tendency to suspect the woe, is a light affair, those of desire and pain in the search with grief.

Taking all the twenty-two replies together we find a marked prevalent agreement on the elements of pain and desire; fifteen or sixteen voices for each. Further, introducing the evidence of the dramatic situation, that is, taking Mozart as a hearer, whose opinion counts for more than that of any other, weakness and simplicity, since they form a part of Barberina's character and are each recognized by a sizable minority of our audience, become further hypothetical elements of the burden of the piece. Whether we should admit the element of search (active desire for something lost) supported by the agreement of the dramatic situation with but two of our

replies, is a question to be best settled by a new test of the melody with other listeners. But there remains a presumption that N belongs to a type of mind specially sensitive to musical expressiveness, for besides this doubtful element, his reply contains all those we have found reason to conclude, enter into the burden of the selection. This is true of but two others, those of J and L. The fact finally that one of these (L) may possibly, like N, be conceived to have felt, in the melody, something of the playful atmosphere under whose influence Mozart undoubtedly wrote, leaves us in doubt as to whether Engel may not be right, after all, in claiming that Barberina's song has comic traits. This is another point that only further experiment could settle.

Of these four elements the pain is certainly emotional; there is an emotional element likewise in the spiritual state we call desire. These two the music must be admitted to have as true burdens; they are not contained in the auditory perceptions. But the non-emotional side of desire appears to be a character of the music itself; and the melody certainly *is* a mild and simple structure of tone, although it may *express* these traits too.

VII.

The opinion of Gurney quoted above about the fragment from Händel is to the effect that an absolute dejection is already expressed in its first five bars, this character being mainly the contribution of the phrases we have called *b*, *c*, and *e*, *f*. These carry a suggestion of human movements of drooping and sinking, which is emphasized by the pause between them, as if one resisted momentarily only to give way more completely. This impression of pathos is recognizably deepened at the note *g* flat in the sixth bar.

Assuming that the melancholy character of this fragment would be generally felt, the question remains whether Gurney was right in regarding the descending thirds and the *g* flat as the main factors in this result, and right in surmising that the thirds act through suggestions of human movement. This is no longer the inquiry simply into the spiritual state accompanying music, on which we have hitherto been engaged. What we want to know now is, with what elements of a certain complex of tone the impression of sadness it makes (if it make one) is mainly connected, and what is the link between them. Not only susceptibility to impressions from music is here demanded and powers of introspection and expression capable of catching sight of and hitting them off in words, but powers of analysis able to trace an element of spiritual state to its source, in an element of auditory per-

ception, and of noting what it is in one that brings up the other.

In spite of the difficulty of this task, something of a consensus emerges from the replies and one that favors Gurney's analysis. To fourteen out of twenty-two listeners the phrase we have called *h* and which contains the *g* flat remarked upon by him, is one of the parts of the air most expressive of melancholy; and seven of these (viz.: O, E, I, C, L, H, J) find therein the culmination of this effect, three (A, B, F) finding it in *h* and *i* together. According to C the extreme dejection begins upon the *g* flat, and I calls it the decisive note of the piece; with the other flatted notes (*c* and *d*) its part in the impression of sadness is also remarked upon by K and M; the flatted *c* being specially singled out by J. About the rest of the fragment there is not so much agreement, but what there is points out *i* and the two passages of descending thirds as main agencies in the effect of melancholy; nearly half the listeners selecting these phrases. A few chose the others (*a*, *d*, *g*) and some regard the impression as a resultant of the whole texture.

That the burden of the piece might be thought either sadness or dejection was suggested in the question, and the opinions of the audience seem to be nearly equally divided as to whether or no it expresses hopelessness as well as melancholy. Beside the word dejection, hopelessness is used (L, E), discouragement also D, and abandonment (H). On the other hand, sadness alone appears to have been recognized by D, E? J? G, M, A, B, F, K, and a positive opinion against hopelessness is expressed by A, B, N and O. Nothing more than that the melody is deeply sad can be considered as distinctly indicated by the tests, and if, in this doubt, we appeal to the words for which it was written (assuming this, though Händel often adapted to new words his own and others' music), the element of dejection is negatived, for it is grief and pity only that are their burden.

As to how it is that the phrases selected come to have their sad expressiveness, some interesting judgments are given: (by E, F, J, K, M, N and E). The principal consensus to be detected among them is the recognition by J, M (sighing) and E? (hopeless suggestion) of a likeness to the intonations of the voice in the expression of sorrow, exhibited by the progressions of thirds (*b*, *c*, *e*, *f*), which suggested bodily movements to Gurney; F also remarks upon this likeness, but asks whether it may not mainly be due to the portamento of the violin (wailing). The image of speech interrupted by expressions of grief seems to be prominent throughout both to M and to E, the sad expressiveness of

phrase *i* being concerned, perhaps, to the former with downward vocal movement. While the same phrase suggests giving way to E and to J, this is undetermined as either vocal or muscular. To I and N, on the other hand, phrase *i* carries a certain consolation with it. N's picture and that of K are drawn throughout in lighter colors than those of M and E; M finds only sad words and *E* bitter conclusions in the sounds that to N have consolation, and to K grandeur in them. In the latter image the melody is no longer a voice, but a life, and the interruptions of the accompaniment not sights, but the fates that come between it and its aims. But although K seems to have had no suggestion of sinking voice or drooping limbs, he mentions other elements of melancholy in the air besides its suggestion of thwarted human plans. Like M he remarks upon the introduction of three flatted notes, d, c and g. The first (occurring in *e*) acts through changing the key of the melody from *eb* to *ab*. Why this change should have pathos does not at once appear. Certainly, on the face of it there is no necessary suggestion here of downward movement; we cannot say that *ab* is lower, or higher than *eb*; it depends on what *ab* and *eb* we choose. There is, perhaps, a more recondite factor here at work, that of the interdependence of the keys of the modern European musical system. According to the theory of Hauptmann of keys a fifth apart, as those of *eb* and *ab* may be conceived to be, the lower is a relaxed form of the higher; a key *strives* into that of its upper fifth and *sinks* into that of its lower fifth. Into this point we cannot go further. The second two flatted notes, g and c, change the *mode* of the melody to minor; and this may be admitted as a sufficient reason for an effect of sadness, although why it should be so is, as above noted, not yet distinctly made out. We can add a third way in which all three of these flatted notes may have aided in the effect of this music; through their suggestion, that is, of a failure to attain an aimed-at height. For all these notes are slightly lower (by a semi-tone) than others which still linger in our minds from the earlier parts of the fragment (d, g and c natural), and the striking of this slightly lower point of pitch the mind may interpret as failure, or as a sign of diminishing strength.

Summing up, the test indicates that the burden of the fragment is perhaps deep sadness rather than dejection. As to the principal factors in the effect Gurney's opinion is confirmed, viz., descending thirds: *gb* in *h* (our replies mention also the other flatted notes); but the former seem to have acted upon our listeners rather through vocal suggestions than through images of bodily movement.

VIII.

The Bach Prelude, in which Rubinstein finds so remarkable a tragic expressiveness, suggested this word to one and only one (C) of our listeners. Two (I and O) acknowledged it in indirect tragic import by calling it funereal. While this result certainly bears against Rubinstein's interpretation, it suggests searching among the other replies for some general content of which the tragic may be conceived to be a special form. We shall, I think, find in them a hint of such a content; but an outline of import which a look at the musical make of the Prelude will once more convince us is nothing extraneous to the composition, but simply the combination of two characteristics of the mass of auditory perception of which it consists. Certain of the replies indicate, moreover, another than a tragic picture of which these characters form the outlines also.

The only consensus which is at all striking among the replies is the agreement of a few listeners upon what may be called a certain fragile inconsequence about the music. L uses the word incompleteness, and further hits upon the technical character of the piece in calling it an introduction; it is simply unsatisfying to B; to J unstable; to M disjointed; to K perhaps this, but better whimsical, and this latter judgment is repeated in the impression of D, where the element of want of connection appears in the idea of improvisation (playing and dreaming) and that of incongruity in the adjective fanciful.

Looking in the music to see whence this impression originates, we find (and this we shall have to content ourselves with simply claiming) that the quick moving melodic element of the texture awakens naturally in the ear of the listener anticipations of its further course that in the event fail of realization. We find, in other words, that inconsequence is a characteristic of a certain factor in the music; this factor is, moreover, a *light* complex of sensation, by which is meant only that it lacks intensity and volume.

But contrasted with this melodic inconsistency and incompleteness we find in the piece massive harmonic complexes (chords) in regular and often undisturbed recurrence. And looking back among the replies we find several which may be interpreted as recognitions of this element in the texture. C finds the music heavily monotonous; to A it is at least satisfactory; B finds it soothing, and to K it expresses contentment.

In the reply of E, finally both elements are recognized, heavy uniformity and delicate waywardness. E is the only

auditor familiar with the piece, and gives in her reply what we may claim as another confirmation (besides that of *C* in I. and *I* in VI.) of the remark in the invitation to the experiment that "an interest in the purely musical aspect of a composition might hinder rather than help" its imaginative interpretation. For usually so full of fancies drawn from life, *E* records here only a structural image taken from (what is called) the nearest art. The "delicate tracery of the frescoes and pillar ornamentation" in this reply suggests Hanslick's phrase, "the many daintily elaborated salt-cellar and silver candlesticks of the revered Sebastian Bach." Yet *E* recognizes first in the music "the massiveness of a cathedral."

The replies that remain record principally emotional as distinguished from intellectual impressions from the piece. It is gloomy to *F*; to *H* expresses sadness, and to *J* languor and reluctance; while dignified, it is non-emotional to *G*; it is sad although elevated to *L*; *A* finds it religious; to *H* it is philosophically elevated and to a dizzy height; while *N* hears in it "a seraph's song, a song as of one excelling in knowledge."

The grave character that all these listeners recognize in the piece is certainly in part the shadow cast by its minor mode, according to the mysterious habitude of this musical form. But most find also an elevation in the music, and this agreement points, I think, to another imaginative picture besides that of the tragic which can be drawn within the outlines laid down by Bach in the texture of sound he created. Which of these can be called the burden of the piece? If either can be our evidence is insufficient to decide.

We have found in the music two strongly contrasted elements: massive complexes of tone in continual recurrence, and a light current of melody having a certain character of inconsequence. It is easy for the fancy to weave between these two presentations of the sense a relation of cause and effect; to make the light inconsequence the result of the heavy insistence, and to picture further the strong monotonous chords as some unswerving natural force or some changeless divinity, and the wavering and often tremulous melody as some personality powerless in comparison. If now the music be approached in a troubled temper and its gravity be heard as gloom or sorrow, there is no thought more natural than that of the wreck of human plans by some over-ruling power. This is the conception of the tragic: the frustration of human desire by some remorseless fate or by the immutable decrees of some divinity; and its mood of feeling is that into which the melancholy of the music transmutes itself at these thoughts—awe before one and compassion for the

other—the fear and the pity of tragedy that Aristotle tells us purify the soul. But if these same melodies and harmonies be heard in a serene or buoyant mood, though the same picture be before us of created weakness in the hands of sovereign power, we see no more a life whose ruin tells of the terrors of divinity, we hear a trembling voice dying into silence before its glory; there is that within us that cast out fear, yet awe remains, and aspiration toward that seraph state.

IX.

In the Don Giovanni serenade the voice melody and that of the mandolin very naturally suggest two contrasted forms of personal mood. The mandolin music brings to the mind a mood of activity of a petty emotional content, the music of the voice a mood of passion (desire) of considerable emotional content. These are mutually exclusive conditions of the soul, and combined in one nature either must be assigned to different strata of it or must be conceived to dispute with one another its possession. That is, a nature cannot at one and the same time be in a predominantly active temper of trifling emotional excitement, and in a predominantly passive frame of fervid feeling. These must alternately occupy the spirit, in which case one may be more frequent or longer sustained or nearer to the personality in being concerned with ranges of idea more intimate in its life, or again there may be nothing to choose between them in these respects. The former supposition may be symbolized as superficial and deeper strata of a nature; in the latter case the personality becomes to this extent what we call a contradictory one.

It seems to me that this serenade makes plain to the attentive beholder what the character of a Don Juan really is: a nature of which levity is the controlling note, notwithstanding numberless fits of amorous gravity. His passion is then superficial, there is a hollowness, a deceit about it. It lies very near to ascribe its expression at all to a *wish* to deceive, to find in the levity a mockery; at least when guided by the operative situation, one's imagination easily takes this step.

But certainly on the evidence of our replies, the Don Juan character cannot be claimed as the burden of this piece, considered simply as a structure of tone. The effects of *song*, it is to be remembered, are no longer those of sound alone. A song must have words and there must be some one to sing them, and these additions, of course, present us with a more or less definitely outlined character ready made. Such effects do not come within the scope of our inquiry, which is concerned with the expressiveness of structure of tone alone. It

is true that when asked for contrasted personal traits, which these two melodies suggest, our auditors agreed upon a certain earnestness in the voice part and a certain gaiety or indifference, or both, in the mandolin accompaniment. But some picture a character in which the earnestness is fundamental and the gaiety superficial; with some the gaiety is the undercurrent, and the seriousness the outward appearance; and with others they are simply contrasted moods. And whatever our conception of a Don Juan nature, it can hardly be that the picture is indefinite on a point as fundamental as this. Indeed, it may be said that there is no more agreement among these replies than was put into them in advance by the question asked, plus their recognition of the main contrast of emotional character between the sound complexes in question.

The lighter elemental is fundamental (as we have supposed it in Don Juan) in but five replies at most: so J (earnest character, with undercurrent of joyousness); L (merry temperament with serious intent); D (childish interest in a fiction); and especially in the replies of F and A, the only listeners to whom the music expressed the personal type we have assumed. F finds it only in the accompaniment, which depicts "a rollicking roué," and recognizes "more depth of character" in the air; A, who, though familiar with, did not recall the song at the time, detects in it exactly the Don Juan attributes of "levity and amorous sentiment."

Four of the replies do not specify either element as predominant; but describe contradictory or at least mixed moods: so H (passionate plea in a laughing accompaniment); I? (mountaineer); K (Marie Bashkirtseff); F (womanly contradictions).

In the remaining seven the earnestness is made the underlying element, and frivolity the superficial one: so B (higher purpose triumphing over the lower); K (David Rizzio); M (worldliness with undercurrent of sincerity); C (frivolity concealing real earnestness); G (womanly seriousness beneath a gay exterior); E (frivolity with steady strain of seriousness); K (playfulness feigned to conceal a sad heart). These last two replies, since the piece was known to the listeners, seem to involve an opposite conception of the Don Juan character to that here assumed. The reply of O (feeling in air; villainy in accompaniment) can be quoted in favor of our own; but certainly neither one nor the other is in any way indicated as the burden of this music.

A sufficient reason for this difference of opinion is, it seems to me, to be found in the nearly equal musical importance of the two contrasted melodies of the Serenade. Even were one

given with the fullness of voice tones, and the other in the gossamer of the mandolin, we could as well imagine either that the singer was speaking his heart while his hands were weaving a deception, or that his members were really at war with one another, as that his hands were revealing what his tongue was trying to hide. Certainly, if this is so, any special Don Juan significance vanishes out of the music; it is Marie Bashkirtseff as well, half given to the world and half to art; or it is the unfortunate Rizzio and the echo of the minstrelsy that covered up his sighs. Indeed, taken out of its dramatic setting why might not this music tell us of some wayward girl that cannot listen to an amorous plea for laughing; or depict to us some other comedy of two characters?

X.

In order to get a new form of question, the test of the character of the Russian melody, "*Der rothe Sarafan*," which to me expresses a certain deeply sad resignation, was attempted indirectly by asking a judgment on the possible origin of the song. Of twenty-one listeners, by whom it was not recognized, three attributed it with more or less certainty to northern races, one, *K*, agreeing with me that it betrays its Russian origin through its "undercurrent of sadness," another, *C*, finding a "pathetic wildness" in it that recalls the Russian or Norwegian people, the third (*L*) giving no reason for his surmise "Slavonic." The first judgment of *I* (old English) was based on a resemblance in style to certain English ballad-music, but this listener writes me, since, that the thought also presented itself "How sad! were these people so oppressed that this was their secret life?" To this testimony may be added the note of *H*, that the melancholy of the song is characteristic; but, on the other hand, another listener (*C*) to whom the selection was also known, found no trace of the Russian character in it. On the whole there is no case to be made out for my view; especially since a larger consensus ascribes a German origin to the piece (so *H*, *J*, *K*, *L*? *M*, *N*, *A*, *E*, *F*, *J*); the spirit of sadness we associate with the Russian character certainly not being a Teutonic trait. Moreover, this Teutonic flavor is expressed as a certain simplicity only (*H* sentimentality). The impression on which the question was based is so strong that these negative results are interesting. It remains possible that earlier in the evening something more positive might have been the outcome of the test.

XI.

After the gay song in which the cards have foretold all manner of good fortune to Frasquita and Mercedes, Carmen deals them for herself: "Diamonds, Spades; Death? Do not lie! First I, then he; to both of us death!" The song "In van per evitar" then follows: "In vain to avoid their hard replies we shuffle them anew; it avails us nothing, the cards are sincere, they cannot cheat. If in the book on high the page is joyful, shuffle and deal them without fear; the cards will turn gladly in thy hands to announce thee pleasure. But if thou must die, if the terrible word is already written in heaven, the cards, to whose will thou needs must bend, will repeat: the tomb! Again; again; again; the tomb!"

According to the testimony of these words the song "In van per evitar" was the expression to Bizet of a mood in which there is felt: a capital desire (for life itself); a conviction of the absolute incompatibility of this desire with the decree of fate; and a feeling of submission to this decree. Trying to hear what the tones themselves say, nearly the same message comes to my mind; I find in them: a passionate desire for life; the certainty that death draws near; a complete resignation; the same elements without the conception of fate.

In estimating the amount of confirmation given this conception of the music by our replies, it is to be remembered that they were called out by what is distinctly a leading question. This determined that, in the minds of the listeners, the piece should be the vocal utterance of some special passionate situation. An outline picture was put before them—a human being speaking under stress of emotion—which, under the guidance of the music, they were asked to fill up as they would. It would only be by inference from our results that the independent expressiveness of this music could be reached; as they stand they indicate what it may be expected to accomplish, if certain outside aid be given.

The operatic situation is in its main outlines reflected in decided prevalent agreements among the replies. Seventeen out of twenty-four listeners agree that the singer is a woman; and eighteen agree that there is before her mind a picture of personal good fortune, and of some obstacle to its realization. But in Carmen's case this issue of personal fortune is (a) capital; the obstacle to the favorable alternative is (b) unconditional, consists, moreover, of (c) a decree of fate and calls forth (d) a feeling of submission. That the issue with which the song has to do is of capital importance to the singer is indicated, or can be inferred, in twelve of the replies: so *H*

(death); A, M, *L* (death of loved one); N (surrender of loved one); O, *B* (despair); *G* (bewailing past joys); O? *D*, *K* (unrequited love); *J* (passionate entreaty); to which may be added *J* (intense protestation); *L* (deep passion). The test then indicates that, conceived as a song, this music expresses a situation of supreme moment to the singer. One of the listeners (*H*) has even detected in it the ring of the death-song that Bizet had in mind to write.

The obstacle to the singer's happiness is represented or can be inferred as unconditional in ten of the replies: so A, M, *L*, *H*, *D*, *F*, *G*, N, *B*, O. It is not a lament but a plea to four listeners, E, G, *C*, A; the point being left undetermined by the remainder. We may take the agreement of this large minority upon an element contained in the words of the song to indicate hopelessness as, at least, a hypothetical element of its expressiveness. Possibly a similar remark is in place with regard to the element of submissiveness, which, however, can hardly be even read into more than seven replies: so A, D, E, N, O, A? *L*.

There is no agreement in regard to the character of the obstacle to the singer's happiness; it is death, the flight of time, an unloving heart, the demands of cause; but in no case fate. This alternative has indeed occurred to N, but to be expressly set aside. Since Carmen's trait of fatalism has its most conspicuous expression in this melancholy acknowledgment of the folly of a struggle against destiny, the discrepancy, in this point, between N's impression and what we must suppose to have been Bizet's mood, is interesting in view of his former coincidence with Mozart.

On the whole, our replies indicate the song to be a supreme lament, possibly hopeless and possibly submissive, at any rate with a certain calm about it. What is lamented or why it should be is not expressed.

Several replies include the whole of this content: so O (sublime, calm, despair); N, *H*, M, *L*, *D* and A (who adds another element); perhaps the reply of *E* should be counted among them.

Looking back over all our results we find the following mental content indicated as the probable or hypothetical burden of these eleven selections:

		<i>Imagery.</i>	<i>Emotion.</i>
I	Beethoven Prelude,	0	0
II	"O mio Fernando,"	0	Yearning.
	"Durch die Wälder,"	Vigor and light-heartedness.	

III	Sonata Pastorale,	Surrender.	Happiness.
IV	Ballade No. 2,	0	Peace succeeded by fear.
V	Beethoven Andante,		Religious sentiment.
VI	Barberina Aria,	Weakness and simplicity.	Pain and Desire.
VII	Händel Aria,	?	Sadness.
VIII	Bach Prelude,	0	Grave emotion.
IX	Don Giovanni Serenade,	?	Contrast of active and passive moods.
X	Rothe Sarafan,	?	?
XI	"In van per evitar,"	If a song: a woman's supreme, calm lament.	

While any assured opinion on so large a subject as that of musical expressiveness would be entirely out of place as the result of a single experimental test, any evidence, however meagre, gives some indication in regard to the subject to which it pertains. This indication, in the present case, may be admitted to go counter to widely held beliefs in regard to the extent of musical expressiveness. Our results point toward this conclusion in two ways. Although this programme is made up of specially expressive music, the amount of significance, imaginative or emotional, which can be made out from our replies is, it must be confessed, comparatively scanty. Further, they show us two ways in which listeners to music may easily be misled in regard to the amount of import in the tones they hear. In the first place, what is in fact a character of the given structure of tone may be mistaken for something external to it. Only the latter is what the music *means*, the former is what it *is*. The intensity or mildness, for instance, of a given note is not an element of its import or expressiveness; it is an attribute or quality of the sound. On the other hand, the height or lowness of a tone, using these words in their primitive sense, is not a character of a note, but an element of its import. A tone has no special place, whether high or low; but the extremes of pitch may be, and have been, combined with the determinations of place we call height and depth, and these imaginative elements then become elements of their expressiveness.

In the second place, what is in fact only a suggestion of a given structure of tone is mistaken for an element of significance in it. Because a music wakes a wealth of fancy and emotion in one's own spirit, one is apt to conclude that it must in the souls of others and in the same way. Our replies offer a good illustration of the untrustworthiness of this conclusion.

It may be worth while to call attention here to the fact that the present inquiry is a purely psychological one. The proximate aim of our experiment has been to find out what

it is that certain selections of music express. Its ultimate aim has been as stated in the invitation, to throw light on the question of the expressiveness of music in general. There is another question somewhat closely related to this and which is not always clearly distinguished from it. It may be formulated : does the *value* of music lie in the auditory impressions of which it consists, or in the movements of the spirit which accompany them ? This is not a psychological question as to what the effects of music *are*, but an æsthetic question as to what they *ought to be*. Two different conceptions of the art are here set over against one another. According to one, music is an art of *emotion* (and fancy) in which tone is used as the means of excitement, only because it happens to be through the ear that the soul can be most deeply, powerfully, and variously stirred. According to the other it is an art of *tone*, an incorporation of beauty in combinations of notes, of which emotion and fancy happen to be the ordinary by-product, just as smoke is of fire. No settlement of fact determines a question of beauty any more than it does a question of right. A psychological investigation like that here entered upon, being an investigation of fact, no conclusions reached in it would be any contribution whatever toward the decision of this vexed point in æsthetics. They have a bearing upon it, nevertheless, in this way : in so far as they indicate that musical expressiveness has been overestimated, they indicate, too, that on the emotional theory of its nature the importance of the art has been overestimated also.

In regard to the method of an inquiry into musical expressiveness. That of the present test was devised in advance of any certain knowledge that such a comparative method was possible at all ; in the event of further like experiment, two changes in it might be made.

One would be to do away with questions entirely, the music being left to make its own unaided impression. There were two motives which led to a relaxation in the present case from this norm of scientific directness. One was the feeling that without musical conundrums, as it were, to guess, the monotony of the evening would be intolerable and cause so much wandering of attention as to defeat our object. The other was the uncertainty as to whether, without external aids, music would have any expressiveness at all that was not too recondite to be put into words. Amid these doubts it was sought to hold a middle course between too much and too little verbal suggestion. But it seems now possible to say that with auditors skilful enough in the analysis of their own states of mind, and with both power and will to exactly report them, such an experiment, if not protracted too long,

needs no other foundation than the music itself. Our own made much too great a demand upon the mental and physical powers of the audience ; a shorter programme is, therefore, to be recommended.

A second change of method is suggested by the fact that even among auditors of an approximately equal knowledge of music, and skill and interest in it, we seem to find differences in capacity to detect its expressiveness. It becomes of special interest to compare the impressions of those whose endowments in this direction are greatest. To this end, a preliminary test might be made in order to select an audience for the experiment itself. It is true our replies indicate that it may not always be easy to decide who these specially sensitive listeners are ; but doubtless the testimony of the auditors themselves, as to the clearness and certainty of their impressions, may be something of a guide.

The present undertaking may be criticised in a variety of ways. It might, in advance, have been thought hopeless to expect to obtain by this method any semblance of the impressions that, under other circumstances, the same pieces might make upon the same listeners. But that the impressions here recorded are inadequate ones can hardly be claimed, now that we see with what detail they often reflect the musical make of the pieces to which they refer. Neither the presence of others, nor the obligation to have impressions, had the untoward effect on the susceptibilities of the listeners that we all feared. But it is possible that to some the whole inquiry may seem a search for something that does not exist. There are no prevalent agreements of spiritual state, it may be thought, among hearers of music ; the expressiveness of structures of tone is an illusion. This assertion is, however, either a surmise or a prejudgment ; and neither are valid against an attempt to bring evidence to bear upon a question. Or the assertion may be that the inquiry is at least off the track ; the expressiveness of music being something other than our conception of prevalent agreements among its hearers. It is to be hoped that any who hold this opinion will advance the discussion of the subject by the presentation of some other theory of the meaning of the phrase. Or waiving this question, it may be contended that what music expresses is literally *unutterable*. We cannot learn from one another what it is ; we must feel it for ourselves. Any attempt to discover it by a method of comparison, since we must proceed by a comparison of utterances, is foredoomed to failure. No interpretation, then, of music that was ever put into words but has entirely missed the true message of the piece—Beethoven's " Fate knocking at the door," Rubinstein's " Wind sweeping

over the churchyard," and all the rest. Although the world would be relieved of much nonsense, were this opinion general, in this extreme form it can hardly have many adherents. At least all that is most valuable, it may more plausibly be claimed, in musical expressiveness, is unutterable. Were our listeners never so sharp-sighted and never so deft with speech, all the best part of their impressions would be left behind in their hearts after the words had gone out of their mouths. Perhaps this is true. It is no news that there are realms of being beyond the reach of scientific inquiry; and among them may lie all that is best in the message of music. Our inquiry then can have but humble results; yet, how humble they must be we can never find out till we try.

Another criticism is unanswerable. It may be said that the opinions of these listeners are but a trifling contribution to a subject of immense extent, and that our conclusions are, accordingly, of the most problematical character. This they and I will at once admit. In itself the evidence we present is a small matter indeed; it becomes considerable only by comparison with that which has gone before of the same kind; for even a very small quantity is indefinitely greater than zero.

ERRATA IN ARTICLE ON MUSICAL EXPRESS-
IVENESS.

P. 44 l. 2, from top: for "apperception" read "appreciation."

P. 44 l. 5, from top: for "the auditory" read "this auditor's."

P. 47 l. 16, from bottom: for "of Beethoven Prelude" read "of the Beethoven Prelude."

P. 50 l. 15, from bottom: for "(of *E*)" read "(cf. *E*)."

P. 51 l. 25, from bottom: for "or morning" read "of morning."

P. 54 l. 9, from bottom: for "cloisterers" read "cloisters."

P. 56 l. 2, from top: for "B sharp" read "B natural."

P. 58 l. 1, from top: for "devoted" read "most devoted."

P. 59 l. 1, from top: for "d b" read "d flat;" for "b sharp" read "b natural;" and for "e sharp" read "e natural."

P. 63 l. 3, from top: for "acknowledged it in" read "acknowledged in it."

P. 65 l. 7, from top: for "cast out" read "has cast out."

P. 69 l. 22, from top: for "cause" read "a cause."